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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/429,470 | 10/28/1999 | HONG HEATHER YU | 9432-000089 | 5971 |

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EXAMINER

CALLAHAN, PAUL E

ART UNIT PAPER NUMBER

2137

DATE MAILED: 11/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/429,470 | YU, HONG HEATHER | |
| | Examiner | Art Unit | |
| | Paul Callahan | 2137 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,12,13,16-19,23 and 29-33 is/are rejected.
- 7) ☐ Claim(s) 7-11,14,15,20-22 and 24-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1-33 were pending in this application at the time of the previous Office Action. Claim 2 has been cancelled by the latest amendment. Claims 1, and 3-33 are pending and have been examined.

Response to Arguments

2. Applicant's arguments filed 6-8-2004 have been fully considered but they are not persuasive.

The applicant asserts that the rejections of claims 1-6, 12-13, 16,19, and 23 under 102(b) as being clearly anticipated by Powell '392, and the rejections of claims 17, 18, under 103(a) as obvious over Powell '392 in view of Cullen '290, are improper because both represent non-analogous art to the instant invention. The applicant states: "In contrast to the claimed invention, Powell and Cullen authenticate images, not graphs as in independent claims 1, 18, and 29. Powell, for example has 249 references to "image" and Cullen has 113 references to image."

The Examiner refers the applicant to pages 11-13 of the specification where the algorithm contemplated for use in the invention to perform content-based authentication of graphed data is described on page 14 as an image authentication algorithm "...discussed in the context of image authentication in the article "Fragile imperceptible digital watermark with privacy control" C.W. Wu et al. The term "image" is found over 35 times in the article. Both the Powell and Cullen references represent analogous prior art to the instant invention since they are in the field of

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watermarking of digital data in the case of Powell, and are admitted prior art in the case of Cullen.

The Applicant challenges the rejections of claim 1, 18 and 29 as anticipated by Powell on the basis that Powell does not contemplate the authentication of a graph. The Examiner counters by noting that claim 1 does not claim authentication of a graph, but instead is directed towards authentication of graphical data. Powell teaches the process of authentication of a graph or graphical data at col. 4 lines 1-5 and col. 5 lines 40-45.

The applicant challenges the taking of official notice in the rejections of the claims, that the feature of transmission of is well known in the art. The Examiner now draws the applicant's attention to the Microsoft Excel 97 Technical Article: "Converting Excel 97 Data to HTML" Joe Clarkson, July 1998, where on page 1 under the section "The Internet Assistant Wizard Add-In" the function of the Add-In is described as "creating a web page from worksheet data or a chart" and page 2 under the section "Syntax, Table 1. HTMLconvert Named Arguments" the argument EmailFullPage is defined, which clearly indicates Excel 97's capability to email a chart to a recipient. The terms chart and graph are used synonymously in the art.

Drawings

3. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because of those items noted on PTO Form 948 made a part of this Office Action. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected

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drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 3-6, 12, 13, 16, 19, 23, and 29-33 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Powell et al. US 6,678,392 B2.

As per claim 1, Powell teaches a computerized method (col. 3 lines 7-10) for authenticating an electronic file (abstract) comprising the steps of: receiving an electronic file and creating an object level representation of the graphical content (col. 2 lines 48-67), and adding authentication information to the electronic file based on the object level representation of the graphical content (col. 2 lines 48-67). Powell teaches the graphical content as having binary pixel bit values (col. 3 lines 30-45: "grey scale image").

As per claim 3, Powell teaches converting the graphical content into a symbolic representation of the graphical content (col. 2 lines 48-67).

As per claim 4, Powell teaches defining nodes of the graphical content with specification symbols (col. 2 lines 48-56).

As per claim 5, Powell teaches defining the shape, size, color, and position of the nodes in (col. 2 lines 48-67).

As per claim 6, Powell teaches defining conditions and familial relationships between the nodes. (col. 6 lines 45-65, col. 3 lines 30-35, col. 2 lines 48-67).

As per claim 12, Powell teaches the step of authenticating the graphical content at the pixel level (col. 7 lines 35-50).

As per claims 13, 16, 19, and 23, Powell teaches the step of adding visible and or invisible authentication information to the graphical content (col. 2 lines 47-67).

As per claims 29-33, these claims represent the apparatus carrying out the method of claims 1 and 18 and are therefore rejected on the same basis as those claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Powell, Cullen et al. (US 5,335,290), and John Clarkson, "Converting Excel 97 Data to HTML," Microsoft Excel 97 Technical Articles, Microsoft Corp. July 1998, pages 1-3.

As per claim 17, Powell does not teach partitioning an electronic file into graphical content and textual content. However Cullen does teach this step. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this step into the system of Powell. The motivation to combine the teachings for these two references is found in Powell col. 1: lines 34-40 where he discusses the need for image authors to audit the usage of their works when published as parts of electronic documents.

As per claim 18, Powell teaches authentication of an image at a pixel level and an object level (col. 7 lines 1-16). However Powell does not explicitly teach transmitting the authenticated image or that the image is a binary graph. However, Clarkson, "Converting Excel 97 Data to HTML," Microsoft Excel 97 Technical Articles, Microsoft Corp. July 1998, does teach the step of transmitting a document or image on page 1 under the section "The Internet Assistant Wizard Add-In" the function of the Add-In is described as "creating a web page from worksheet data or a chart" and page 2 under the section "Syntax, Table 1. HTMLconvert Named Arguments" the argument EmailFullPage is defined, which clearly indicates Excel 97's capability to email a chart to a recipient. The terms chart and graph are used synonymously in the art. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features of Clarkson into the method of Powell. It would have been advantageous to do so as transmission of documents such as graphs and charts implies utilization of the Internet for

commercial sale of this data, and utilization of the authentication method of Powell to authenticate binary graph data would increase the security and hence marketability of the data.

Allowable Subject Matter

8. Claims 7-11, 14, 15, 20-22, and 24-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

As per claim group 7-11, and 26, the prior art does not teach the limitations of claim 1 and sequential authentication of an object level representation by a textual authentication algorithm, as the Examiner understands the Applicant's use of the terms.

As per claims 14 and 15, the prior art does not teach the limitations of claim 1 and where the visible authentication data is a bounding box or a bar code.

As per claims 20-22, 24, 25, 27, and 28, the prior art does not teach the limitations of claims 19 and 23, and further operating on a truncated image in the manner of the applicant as found in claims 20 and 24.

Conclusion

10. The prior made of record and not relied upon is considered pertinent to applicant's disclosure.

DeLaHuerger

US 6,408,330 B1

Hong Heather Yu: "Content-Based Graph Authentication," Panasonic Information and Networking Technology Lab, Multimedia and Security Workshop at ACM Multimedia, 30 Oct. 1999.

Michael Voight and Christopher Busch: "Watermarking 2D-Vector Data for Geographical Information Systems, Proceedings of the SPIE, Jan. 2002

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E. Callahan whose telephone number is (571) 272-3869. The examiner can normally be reached on M-F from 9 to 5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached on (571) 272-3869. The fax phone number for the organization where this application or proceeding is assigned is: (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

10/29/04

Paul Callahan

Andrew Caldwell
Andrew Caldwell